

I Claim:

1. A software program stored on a computer-readable medium for monitoring and controlling a model railroad, said software program operable to perform the steps of:

5 displaying a representation of said model railroad layout on a display; and changing said representation of said model railroad layout.

10 2. The software program of claim 1, wherein said step of changing said representation further comprises the step of:

moving a track element within said representation of said model railroad layout.

15 3. The software program of claim 2, wherein said track element is one of a straight track piece, a turnout and a curved track piece.

4. The software program of claim 2, wherein said step of moving said track element further comprises the step of:

20 rotating said track element.

25 5. The software program of claim 1, wherein said step of changing said representation further comprises the step of:

joining two turnouts together, whereby said two turnouts can be controlled jointly.

6. The software program of claim 1, wherein said step of changing said representation further comprises the step of:

30 changing a turnout element within said representation of said model railroad layout from a first position to a second position.

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7. The software program of claim 6, further comprising the step of:
outputting, responsive to said changing a turnout element step, a command
to a motor associated with said turnout element in said model railroad
layout, to switch said turnout element from said first position to said
second position.
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8. The software program of claim 7, wherein said command includes an address
of associated with said turnout element and at least one data bit.
- 10 9. The software program of claim 1, wherein said step of changing said
representation further comprises the steps of:
creating a new element within said representation of said model railroad;
assigning an address to said new element; and
storing said address of said new element.
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10. The software program of claim 1, further comprising the step of:
outputting, responsive to said changing step, an addressed command to a
an element within said model railroad layout that corresponds to an element
which was changed within said representation.
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11. An interface unit operable to translate a command received from a computer
into a motor control command for controlling at least one element within a
model railroad system, said interface comprising:
a plurality of addressable units for receiving address information and data
information within said command, wherein one of said plurality of
addressable units that corresponds to said address information within said
command translates said data information into said motor control command
and outputs said motor control command.
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12. The interface unit of claim 11, wherein said plurality of addressable units
include: a set of decoders and a plurality of addressable registers.
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13. The interface unit of claim 12, further comprising:
a resistor bank connected to each of said plurality of addressable registers.
- 5 14. The interface unit of claim 13, further comprising:
a triac connected to each of said resistors in said resistor bank.
- 10 15. The interface unit of claim 12, further comprising:
a coil latching relay connected to each of said plurality of addressable
registers.
- 15 16. The interface unit of claim 11, further comprising:
means for energizing a frog section of a turnout element within said model
railroad system.
- 20 17. The interface unit of claim 11, wherein said command includes three address
bits, four group bits and one data bit.

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